On the Minds of Investors

September 2019

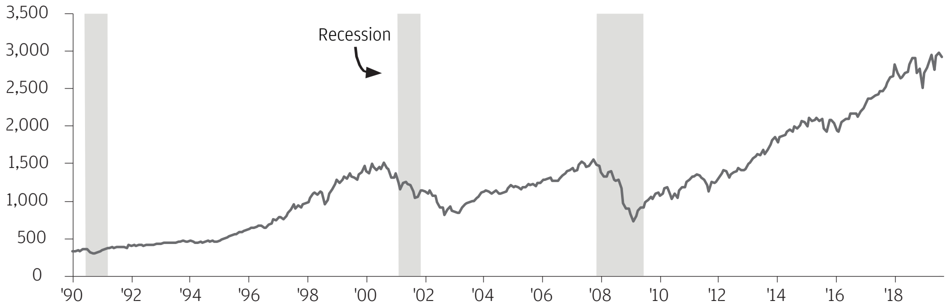
How can we track the health of the US economy?

The health of the economy matters for markets

As investors, we know that recessions hurt. Contractions in real gross domestic product tend to coincide with falling corporate profits. Looking back at history, we can see that recessions often coincide with periods of significant market turmoil. All of the last three US recessions (beginning in 1990, 2001 and 2007) led to bear markets (declines of 20% or more) in the S&P 500 and contractions in analysts' forward earnings expectations (**Exhibit 1**).

EXHIBIT 1: S&P 500 INDEX

Recession	% decline in real GDP	Number of months between market peak and recession	% decline in S&P 500 price index	% decline in forward earnings
Jul '90-Feb '91	-1.4%	1	-20%	-8%
Mar '01-Oct '01	-0.3%	12	-49%	-18%
Dec '07-May '09	-4.0%	3	-57%	-40%



Source: Standard & Poor's, J.P. Morgan Asset Management. % decline in S&P 500 price index and forward earnings are the maximum drawdown in each respective measure for each associated recessionary period. Periods of "recession" are defined using US National Bureau of Economic Research (NBER) business cycle dates. Past performance is not a reliable indicator of current and future results. Data as of 6 September 2019.

Recessions, however, are extremely difficult to predict. Both markets and economists have a poor record when it comes to trying to forecast either the timing or the depth of future recessions. On the market side, in two of the last three bear markets, the stock market has peaked only a matter of months before the recession. Economists can't seem to do much better: of 153 recessions across 63 countries between 1992 and 2014, only five were predicted by a consensus of private sector economists in April of the preceding year.[1]

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[1] *IMF Working Paper - How well do economists forecast recessions?* Zidong An, João Tovar Jalles & Prakash Loungani, International Monetary Fund, March 2018.

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With over 100,000 series available on the US economy on Bloomberg, knowing which indicators to look at to gauge the direction of the economy can be a struggle in itself. This piece aims to address these challenges and provide investors with a monitor to help track the health of the US economy and the potential risks on the horizon.

Taking the temperature of the US economy

We start with a series of symptom indicators that take the temperature of our patient - the US economy - and tell us here and now whether it is in fine fettle or starting to feel poorly. The indicators that we have chosen span the broad economy, including the consumer and services sector, the manufacturing sector and the labour market.

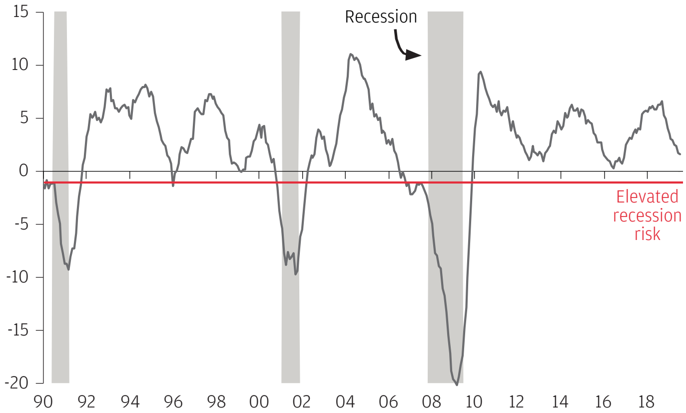
After assessing hundreds of series with linear regression analysis tests, the indicators chosen were found to best meet three desirable criteria: first, the indicator needs to have a good level of explanatory power (r-squared) for US real GDP growth; second, the indicator should have good recession signals, without the presence of too many false alarms; and third, the indicator should have some lead time prior to a recession, in order to give some warning of future weakness.

Exhibit 2 shows a summary of the symptom indicators, and plots where the latest indicator readings rank by percentile, relative to historic data points going back to 1990. When the latest point is nearer the red area of the chart, this tells us that the indicator is nearer the lower end of its historical range of values, and indicates a higher risk of recession, and vice versa.

The chart also includes an "elevated recession risk" flag that will show when the latest data is consistent with a value that has been observed at the onset of any of the past three US recessions– suggesting that, from a historical standpoint, there is a heightened chance of recession. For example, **Exhibit 3** shows that when the Conference Board Leading Economic Index falls by more than 1.0% year on year, this has historically been consistent with a recession. More details on the indicators used can be found in the accompanying US Economy Health Check chart book.

EXHIBIT 3: CONFERENCE BOARD LEADING ECONOMIC INDEX

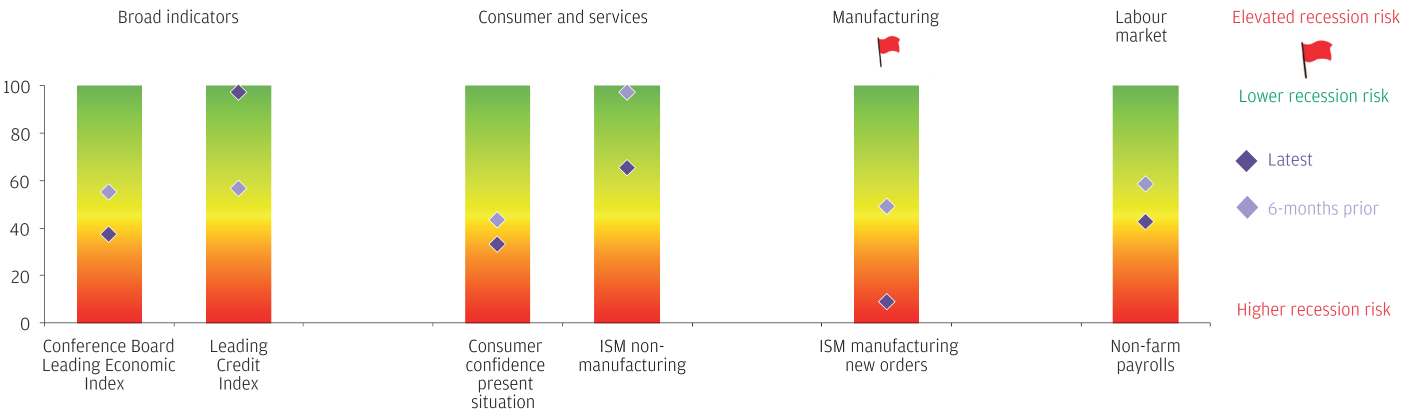
% change year on year



Source: Conference Board, Refinitiv Datastream, J.P. Morgan Asset Management. Conference Board Leading Economic Index is comprised of: average weekly hours (manufacturing), initial claims, manufacturers' new orders (consumer goods and materials), ISM manufacturing new orders, manufacturers' new orders (nondefense capital goods excluding aircraft orders), building permits (new private housing units), stock prices (500 common stocks), Leading Credit Index, interest rate spread (10-year Treasury less Federal funds), average consumer expectations for business conditions. Elevated recession risk is shown when the underlying indicator is consistent with a level that has been observed at the beginning of the last three US recessions, as determined by NBER. Data as of 6 September 2019.

EXHIBIT 2: US ECONOMIC SYMPTOM INDICATORS

Percentile rank relative to historic data since 1990



Source: BLS, Conference Board, ISM, Refinitiv Datastream, J.P. Morgan Asset Management. Elevated recession risk flags are shown when the underlying indicator is consistent with a level that has been observed at the beginning of the last three US recessions, as determined by NBER. Past performance is not a reliable indicator of current and future results. Data as of 6 September 2019.

When we look at the latest symptom indicators, they tell us that the health of the US economy has softened notably in the past six months and that this weakness is broad based. As a whole, though, the indicators are not yet signalling that a recession is imminent.

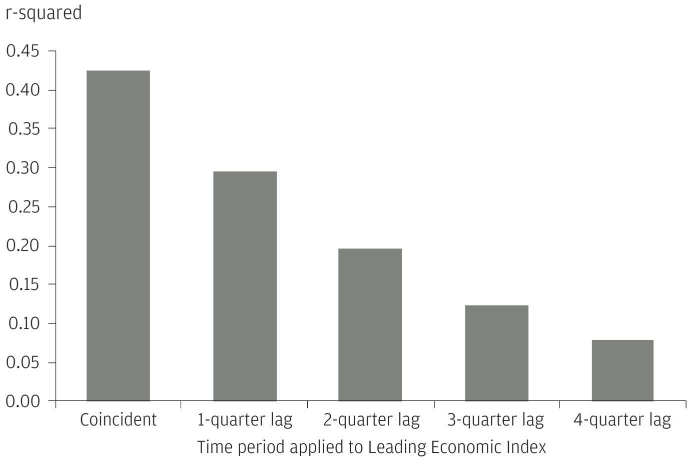
Part of the slowing in economic growth was to be expected, as the stimulus that the tax cuts provided gradually faded. But the trade war has also had an effect as businesses feel less confident about the outlook. This uncertainty has weighed most heavily on the more trade-dependent manufacturing sector, and so the Institute for Supply Management's manufacturing new orders indicator is one of the more worrying of the symptom indicators.

The one indicator that has improved significantly in the past six months has been the Leading Credit Index, a six-component indicator that tracks lending conditions in the US economy. This is because of the increasingly accommodative stance of the US Federal Reserve (Fed), which has helped to support favourable lending conditions in the economy.

A deeper health check can help identify areas of excess

These indicators do a good job of analysing near-term momentum, but as we look beyond the next six months the explanatory power of each measure diminishes (Exhibit 4). No wonder economists have found predicting recessions so difficult.

EXHIBIT 4: EXPLANATORY POWER OF THE CONFERENCE BOARD LEADING ECONOMIC INDEX FOR US REAL GDP GROWTH OVER DIFFERENT TIME LAGS



Source: BEA, Conference Board, Refinitiv Datastream, J.P. Morgan Asset Management. Chart shows the linear regression analysis results for the Conference Board Leading Economic Index (LEI) (% change quarter on quarter) against US real GDP (% change quarter on quarter) over different lag periods for the LEI. Data as of 6 September 2019.

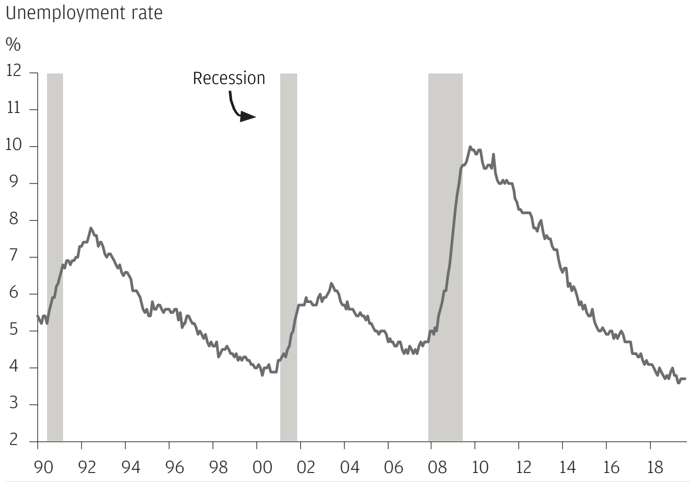
Indeed, an apparently buoyant economy today can be the cause of problems in the future. Complacency and overconfidence in the economy sets in and potentially leads to overindulgence that comes back to haunt the patient further down the line. Indeed, overindulgence often necessitates a policy response, usually in the form of higher interest rates, to slow the economy down and prevent overheating. But the imperfect drug of tighter monetary policy often results in an overcorrection and a recession.

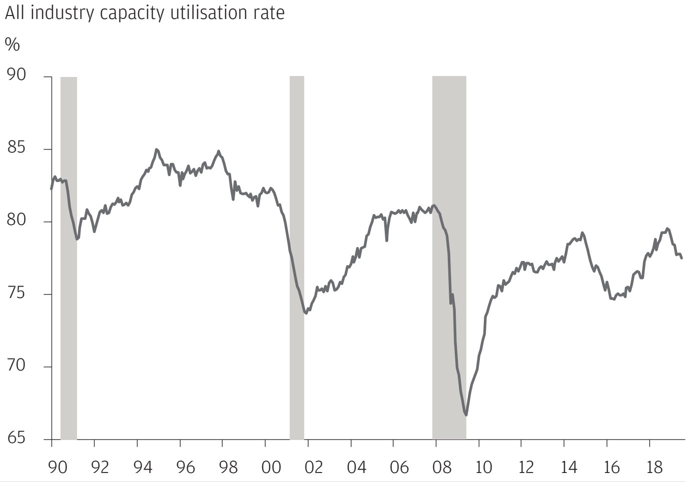
In order to better understand the prognosis for the economy, we need to take a deeper health check to identify any potential areas of excess. This is akin to having a blood pressure or cholesterol test: a high reading in either of these doesn't necessarily indicate an immediate issue, but it may cause a problem in the future, though when exactly that might be is uncertain.

Looking at capacity in the economy, the unemployment rate sits at near-50-year lows, leading the labour market to be characterised as "tight" (Exhibit 5). This raises questions about the sustainability of future growth from companies hiring more workers, since labour is becoming scarcer. A scarcity of workers can also sometimes feed into runaway inflationary pressure, but while falling unemployment has led to a gradual acceleration in wage growth, there is little sign today that this is getting out of hand.

The capacity utilisation rate (the extent to which installed productive capacity is being used) can also foreshadow building inflationary pressure. This measure was high in the past two recessions, when the Fed felt it necessary to tighten monetary policy to prevent the economy from overheating. Higher rates subsequently burst the tech bubble in 2000 and the housing bubble that precipitated the global financial crisis. It is hard to see evidence of overheating in this cycle, with capacity utilisation remaining well off the highs for this cycle and prior cycles, and inflation remaining muted – so much so that the Fed has recently been loosening policy. Overly restrictive monetary policy therefore looks unlikely to be a cause for concern in the near future.

EXHIBIT 5: US UNEMPLOYMENT AND CAPACITY UTILISATION RATE





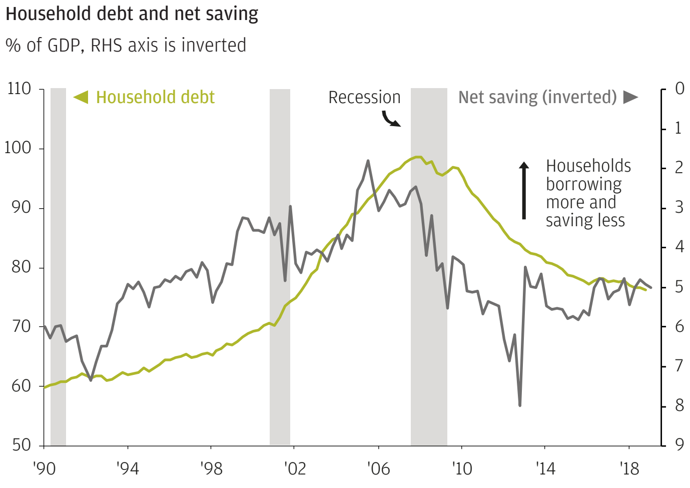
Source: (Left) BLS, Refinitiv Datastream, J.P. Morgan Asset Management. (Right) US Federal Reserve, J.P. Morgan Asset Management. Past performance is not a reliable indicator of current and future results. Data as of 6 September 2019.

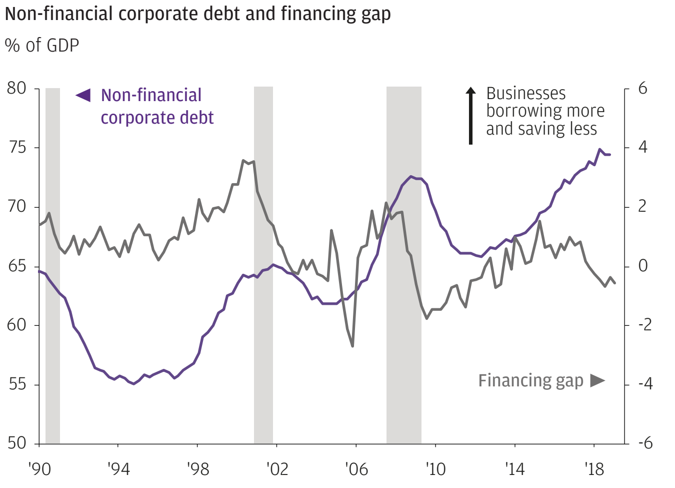
Another area of potential excess is either households or corporates overextending themselves and spending more than they can afford (**Exhibit 6**). The levels of both household debt and net savings (net disposable income minus consumption expenditure) look healthy. Indeed, the consumer balance sheet is in much better shape than seen before either of the last two recessions. This is comforting given consumption represents approximately 70% of US GDP.

The non-financial corporate business financing gap (the difference between what businesses are spending on capital expenditure and undistributed corporate profits) doesn't suggest the over-exuberant business spending that we observed in the prior two recessions, when businesses were investing beyond their means. However, while businesses don't currently look to be overreaching, outstanding corporate debt levels are high, and are one area of excess worth monitoring – particularly if a downturn led to higher corporate refinancing costs as credit risk rose.

The inversion of the yield curve has also been catching investors' attention. While it is true that the yield curve has historically inverted prior to a recession in the US, we believe global central bank quantitative easing has reduced the signalling capacity of the yield curve, by depressing longer-term yields (see our *On the Minds of Investors* article).[2] Given the uncertainty of the magnitude of this effect, we should not rely on this measure alone, but look at it in the context of the other indicators.

EXHIBIT 6: MEASURES OF EXCESS AMONG HOUSEHOLDS AND NON-FINANCIAL CORPORATES





Source: (All charts) BEA, US Federal Reserve, Refinitiv Datastream, J.P. Morgan Asset Management. Household net saving is defined as net disposable income minus final consumption expenditure. The financing gap is the difference between capital expenditures and gross savings less net capital transfers paid, excluding foreign earnings retained abroad. Non-financial corporate financing gap data has been smoothed in 2018 to account for the Tax Cuts and Jobs Act of 2017. Past performance is not a reliable indicator of current and future results. Data as of 6 September 2019.

US health check results

Our symptom indicators are suggesting that a recession is not currently imminent. However, the economy has lost some of its momentum over the past six months, and indicators across the board have deteriorated.

Among our indicators of excess, the unemployment rate suggests that we are late in the economic cycle and presents a headwind to future growth. But, unusually, we don't see any signs of the inflationary overheating that has often been observed in the late stages of previous cycles, and which has led the Fed to overtighten in past cycles, causing recessions.

Overall, even if political events cause a further slowdown in activity, we can draw some comfort from the strong position of household finances. As for American businesses, the high levels of corporate debt don't appear to be a problem for now. But if weaker economic conditions lead to higher financing costs, the viability of such high levels of debt could come in to question.

INVESTMENT IMPLICATIONS

With an economy that has been losing momentum against a late-cycle backdrop, we continue to advocate building more resilience into portfolios. This means a more neutral exposure to equities as a whole, and a bias toward large-cap, quality, value stocks, which have historically been more resilient in downturns. Investors concerned about a potential recession in the US may be tempted to shift away from US equities into other equity markets, but during US recessions stock markets in all regions tend to fall — sometimes by more than US equities. Equity funds which are able to go net long or short the market may also make sense during these uncertain times.

In fixed income, an up-in-quality approach within credit probably makes sense given elevated corporate leverage. Within government bonds, US Treasuries still have more room for yields to fall, despite the already significant move lower, and so can still help add ballast to portfolios. Investors may also want to consider complementing a traditional stock-bond portfolio with an allocation to alternatives. Macro funds are able to position for both rising and falling markets and allocate dynamically in volatile markets, while real estate and infrastructure, which tend to have low correlations with public markets in return for a lack of liquidity, can offer higher yields.

[2] *On the Minds of Investors - Is the flattening yield curve a sign of trouble ahead?* Karen Ward & Jai Malhi, J.P. Morgan Asset Management, August 2019.

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